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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/672,440

09/28/2000

RONAK PATEL

114596-29-0125BS

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12/01/2005

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EXAMINER

COLEMAN, ERIC

ART UNIT

PAPER NUMBER

2183

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/672,440

Applicant(s)

PATEL ET AL.

Examiner

Eric Coleman

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-33 and 36-43 is/are allowed.
- 6) ☒ Claim(s) 34,44 and 45 is/are rejected.
- 7) ☒ Claim(s) 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-45 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 34,44,45 are rejected under 35 U.S.C. 102(b) as being anticipated by Danish (patent No. 5,121,472).
4. Danish taught the invention as claimed including a data processing ("DP") comprising; (as per claim 34) the steps of during execution of a program on a computer, recognizing in hardware a condition in which an instruction is to affect the function to be performed by a second instruction [the single step handler examines the next instruction in hardware interrupt handler to see if it is an instruction to retrieve data from the keyboard (e.g., see figs. 2,3b) This keyboard input instruction provides data to be used by instructions to be executed, and provides an interrupt to instruction processing (e.g. see col. 1, lines 49-66) and therefore affects the function of instructions to be performed], and in response, setting the processor into single-step mode (e.g., see col. 2, line 65-col. 3, line 56); taking a single-step exception after executing the second instruction, and setting the processor out of single-mode[after processing keyboard input the single step exception handler performed the single step interrupt removing the

central processing unit from single step mode and then returning control to the main control program (e.g., see col. 3, lines 43-64) .

5. As per claim 44, Danish taught servicing a single step exception including querying a debug touch record (e.g., see col. 5, lines 38-53)[the touch record is a record of keyboard input or which keyboard keys were touched for simulation and this data was placed into the keyboards register].

6. As per claim 45, Danish taught the first instruction writes an interrupt enable flag of the computer (e.g., see col. 3, lines 2-56) [processor is placed in single step mode by setting its single step flag and pointing instruction processor to keyboard hardware interrupt routine, examining the next instruction of the keyboard hardware interrupt handler routine with the single step interrupt handler].

Response to Arguments

7. Applicant's arguments with respect to claims 34, 44,45 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8. Claims 1-33,36-43 are allowed.

9. Claim 35 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takeuchi (patent No. 4,275,441 disclosed a microprogram control system (e.g., see abstract).

Swoboda (patent No. 6,564,339) disclosed a system with emulation suspension mode handling multiple stops and starts (e.g. see abstract).

Swoboda (patent No. 6,820,051) disclosed software emulation monitor employed with hardware suspend mode (e.g., see abstract).

McKee (patent No. 6,694, 457) disclosed a system for monitoring execution of privileged instructions (e.g., see abstract).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Coleman whose telephone number is (571) 272-4163. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2183

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EC


ERIC COLEMAN
PRIMARY EXAMINER